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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

SECRET
SECURITY INFORMATION

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COUNTRY	USSR (Moscow Oblast)	REPORT	
SUBJECT	Site Layout and Security Measures at Institute 160, Fryazino	DATE DISTR.	2 December 1953
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THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

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2. Following are corrections for some names and terms appearing in the attached report:

Page 2, Para 3: For Ministry of Communication Equipment read Ministry of Communications Industry. For Main Administration read Chief Directorate.
Page 3, Para 4, Point 5: For Podyeda read Pobeda.
Page 6, Para 9: Industraniy spezialist should probably read inostrannyy spetsialist.
Page 10, Sketch: Fedoseyev has been previously reported as Feodoseyev. Struzinskiy has been previously reported as Strutinskiy.

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COUNTRY : USSR

DATE DISTR. 28 OCT 53

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THIS IS UNEVALUATED INFORMATION

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INTRODUCTION

1. Institute 160, a research and development center for electronic tubes, is located in Fryazino (55° 58' N. 38° 04' E). 50X1-HUM

2. The oldest building in the area, designated as the administration building (point 3) was a silk factory during tsarist times. Between the years 1930-1934, U.S. experts from RCA converted the building into a radio transmission tube factory. this plant continued to produce tubes through World War II. The building commonly referred to as the "institute building" (point 15) was erected in 1939.

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3. Institute 160 was subordinate to the Ministry of Communication Equipment (MCEI) and was directly supervised by the Main Administration for Vacuum Techniques within that ministry.

SITE LAYOUT

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4. sketch of the institute area /page 9 7 on which 50X1-HUM indicated the points listed below. Institute 160, referring to the entire group of buildings shown on the attached sketch. 50X1-HUM

Point 1 Entrance Building

This L-shaped brick building was 11 x 8 x 2.5 meters, with a shed-type roof covered with dark gray corrugated material. It had four entrances during the rush hours, but only two during the day. There was also a day room for guards and a reception room for visitors.

Point 2 Warehouses 50X1-HUM

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These brick buildings were 24 x 6 x 2.5 meters with shed-type roofs covered with gray corrugated material. there may have been two additional buildings of this type. woolen underwear and other clothing 50X1-HUM was stored in it. Electrical components and other materials required in development work may have been stored in the others. 50X1-HUM

Point 3 Administration Building

This E-shaped three-story, red brick building was 50X1-HUM 40 x 20 x 10 meters. Each wing was about 10 meters wide. The low pitch gable roofs were covere 50X1-HUM red tile. the first floor contained lathes and drill presses. The second floor housed the bookkeeping, 50X1-HUM payroll, and procurement offices. The German Affairs office (Betreuungsbuero) on the third floor. many Soviet apprentices on this floor 50X1-HUM

Point 4 Filling station

This stuccoed building, 20 x 8 x 4.5 meters, had a low pitch gable roof covered with corrugated gray material. There was a gasoline pump here for filling institute vehicles. the 50X1-HUM drivers signed for the gasoline. minor vehicle repair facilities were also available here.

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Point 5 Garage

It was a 40 x 8 x 3 meter brick building with a shed-type roof covered with gray corrugated material. Ten passenger cars (one ZIS and nine Podyeda), ten or more small ZIS trucks, and about five or six 20-passenger busses were housed here. There were also about ten to fifteen privately owned cars on the grounds at all times.

Point 6 Main Administration Building

It was a three-story stone building covered with stucco, 20 x 7 x 10 meters. The gable roof was covered with gray corrugated material. 50X1-HUM the personnel section (chief was BONDERYEV) was located on the second floor.

Point 7 Building

This was a stuccoed building 18 x 8 x 4 meters, with a high pitch gable roof covered with red tiles. This building housed the polyclinic (ambulatorium) until 1950. At that time the poly- 50X1-HUM clinic was moved to the town of Fryazino

Point 8 Bicycle Stand

It was a wooden construction covered with a shed roof.

Point 9 Canteen

It was a stuccoed stone building, 15 x 15 x 6 meters, two stories, with a red tile roof. The first floor housed the canteen, where food, fruit, cigarettes, and beer could be purchased at all hours. Lunches were served at noon. The second floor housed the zavkom and a general library.

Point 10 Glass Factory

This red brick building, 25 x 12 x 10 meters, had an arched steel girder roof, partly covered with glass and partly with sheet metal. The German specialists RIEDEL, WAGNER /Air Force/ and HUEBNER 50X1-HUM worked in this building all types of glass used in vacuum tube construction was manufactured here, including a special type of glass 50X1-HUM referred as "CER Glas".

[redacted] 50X1

Point 11 Entrance Building

It was a brick building, 5 x 5 x 3 meters with a low pitch gable roof covered with gray material.

Point 12 Lounge Building

It was a stuccoed brick building, 12 x 4 x 4 meters, with a low pitch gable roof covered with gray material. It was completed in spring 1950. [redacted] 50X1-HUM
[redacted] aspirants for the Kandidat degree used this building as a lounge or study room. 50X1-HUM

Point 13 Vacuum Tube Factory

This was a three-story stone building covered with stucco, 60 x 20 x 12 meters, and had a low pitch gable roof covered with gray material. It had large square windows on each floor. The first floor contained vacuum tube production machines such as grid winders (Gitterwickler), tube exhausters (Pumpen), and 48-position metal-glass sealing machines (Einschmelzautomaten). The second floor housed the cathode and crystal detector production departments. Doctors RICHTER and SCHAAFF [redacted] were here often. The third floor housed the tube development department and laboratory. 50X1-HUM

Point 14 Transformer

It was enclosed in red brick, 1.5 x 1.5 x 2 meters. All cables leading to it were underground.

Point 15 Institute Building

It was a stuccoed brick building, 50 x 18 x 14 meters, four stories, with a low pitch gable roof covered with gray material. [See page 10 for sketches of each floor.]

Point 16 Hydrogen Production Building

It was a stuccoed stone building, 20 x 10 x 5 meters, with an arch roof. [redacted] There was an 50X1-HUM explosion here in March 1950 and some Soviets told me that a few workers were seriously injured.

Point 17 Magnetron Development Building

It was a stuccoed brick building, 40 x 12 x 4 meters, with a low pitch gable roof covered with gray material. This building was completed in spring 1949 and the magnetron department moved there from the institute building (point 15). Soviets only were permitted to enter this building. SHAKHOV and ZUSMANOVSKIY had their offices in it.

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Point 18 Building

It was a stuccoed stone building, 40 x 12 x 10 meters, three stories high, with a low pitch gable roof covered with gray material. Construction was completed in February 1952. some of the machines used in making tube production machinery would be moved into this building. 50X1-HUM 50X1-HUM

Point 19 Vacuum Tube Production Machines Building (OKBM)

It was a stuccoed brick building, 40 x 12 x 10 meters, three stories, with a low pitch gable roof covered with gray material. The first floor housed workshops where the machines were made. All kinds of lathes, milling machines, punch presses, etc. were contained in these shops. The second floor housed the design offices. The third floor housed the assembly sections.

Point 20 Building Area

The foundations of a U-shaped building were in place at Institute 160, but no further construction was done it was the site of a new building for the institute itself. 50X1-HUM 50X1-HUM

Point 21 Coal Dump

Coal was brought here during summer. It was very poor grade; The institute buildings had central heating 50X1-HUM

Point 22 Fence

The institute grounds were surrounded by a two-meter high concrete slab wall surmounted by barbed wire. Occasional slabs would fall and it would take days before they were raised again.

Point 23 Railroad Entrance

An iron gate about four meters wide could be opened to permit the entry of trains. A guard armed with a rifle was permanently stationed here.

Point 24 Vehicle Entrance

An iron gate attended by a guard.

PUBLIC UTILITIES

5. Electricity available in the institute was 220 volts. [redacted] not restricted in its use within the institute, but [redacted] electricity was cut off at times in the town of Fryazino. Sufficient water was on hand at all times. It was provided by the water-works in Fryazino. [redacted] a few of the laboratories had provisions for fuel gas [redacted] the source [redacted] may have been cylinders. 50X1-HUM 50X1-HUM

MATERIEL SUPPLIERS

6. [redacted] some resistors and condensers came from Gorkiy, tube sockets from Kiev and Leningrad, transformer sheets from Moscow, and measuring instruments from Leningrad. 50X1-HUM

PLANT TRANSPORTATION

7. The roads shown on the sketch /page 9/ were asphalted and were in good condition. [redacted] the railroad tracks shown are accurate, although there may have been additional sidings [redacted] The locomotives were electrically operated, although [redacted] some steam locomotives in the plant area. Some freight cars were usually standing on sidings, particularly near the tube factory (point 13) [redacted] 50X1-HUM 50X1-HUM 50X1-HUM

LABOR FORCE

8. [redacted] at Institute 160 there were about 500 employees working there. [redacted] in March 1952 the total labor force was about 3000 employees. The institute had an apprentice system in the workshops (with approximately 200 apprentices). The factory employees worked from 0730 to 1630 hours, and the engineers and technicians from 0830 to 1730 hours, six days a week. The factory employees had their lunch hour at 1200 hours, and [redacted] occasionally went to lunch then instead of at 1300 hours, thus getting two hours for lunch. It was also possible to leave the institute grounds with them at 1630 hours, if [redacted] take the chance that [redacted] not be needed. [redacted] some workshops worked three shifts. 50X1-HUM 50X1-HUM 50X1-HUM 50X1-HUM

SECURITY MEASURES

9. Institute employees did not carry passes outside of the institute. Each worker received a pass when he entered the grounds in the morning and relinquished it upon leaving. All passes were identical in that they had the bearer's name, photograph, date of issue, tsekh or other place of work, and the institute stamp. The German specialists' passes were distinguished by the words Industraniy spezialist (foreign specialist) stamped across them. [redacted] there were passes entitling the holder to enter any building [redacted] 50X1-HUM 50X1-HUM

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50X1-HUM

10. The entrance procedure was simple. In the morning one would go through the entrance building (after 1949 all Germans were told to use only the one entrance, point 11), call out the number of the pass to the Soviet woman in the pass booth, and receive the pass, which was then shown to the guard at the other end of the corridor .

11. Visitors entered the entrance building (point 1) and stated their business to a guard. The guard would call the department involved, who would give permission for the visitor to enter the area. the visitor was given a temporary pass, giving the time, person visited, reason, etc. He was not escorted. 50X1-HUM

12. Workers who lost their passes were fined and were allowed to leave the area only with special permission from the First Section. 50X1-HUM if they forgot them at their place of 50X1-HUM work they had to go back for them. The institute security section controlled the pass system no information 50X1-HUM about procedures. Workers did not display their passes while working, nor did they have any identification tags.

13. Soviet workers were never searched when they left the installation, except in cases where individuals were suspected of taking some state-owned property with them. Spot-checks were considered an injury to the personal dignity of the Soviet citizen. A German specialist was once searched because someone had seen him take some blank writing paper with him. He was released after the department head involved was called and he had stated that he had given his permission. a Soviet woman taken into 50X1-HUM custody after she had been searched and a six-inch cathode ray tube had been found in the bosom of her dress. Brief cases could not be taken into the area without special permission, and there was a room in each entrance building where they were kept. 50X1-HUM

14. Applicants for work at the institute apply at the entrance buildings and the guards go through the regular visitors procedure, calling the personnel section for entrance permission. The personnel offices were in the main administration building, (point 6). the applicants had to take a physical examination. (Also, all employees were examined once a year.)

15. The institute must have had a total force of at least fifty guards. indicated those posted outside of buildings with an "x" on the sketch (page 9) . they were on 50X1-HUM duty six hours, 50X1-HUM
About half of the guards were women over thirty years of age. The men were usually older. They wore black uniforms--trousers and jacket for the men, blouse and skirt for the women. In winter they wore long black coats. They did not have any insignia . They were armed with pistols. The personnel section under BONDERYEV was responsible for the guard system, and he was also responsible for physical security arrangements. 50X1-HUM

[redacted] 50X1

16. The installation was surrounded by a two-meter-high concrete slab wall surmounted by barbed wire. There were no watchtowers, floodlights, or dogs patrolling the area. [redacted] 50X1-HUM

17. The German specialists all had bound books with numbered pages in which they wrote everything that was to be written. This book was turned into the zamnachalnik at quitting time. He distributed them to the employees in the morning, after he had picked them up from the security section. Working papers could be taken out of the installation with the special permission of the department head concerned. [redacted] 50X1-HUM identified [redacted] work in any way [redacted] It did not make any difference because the department or laboratory chief would put his own name on the material before it was turned in for approval anyway.

18. [redacted] 50X1-HUM
There were hand fire extinguishers in the corridors and rooms of every building [redacted]

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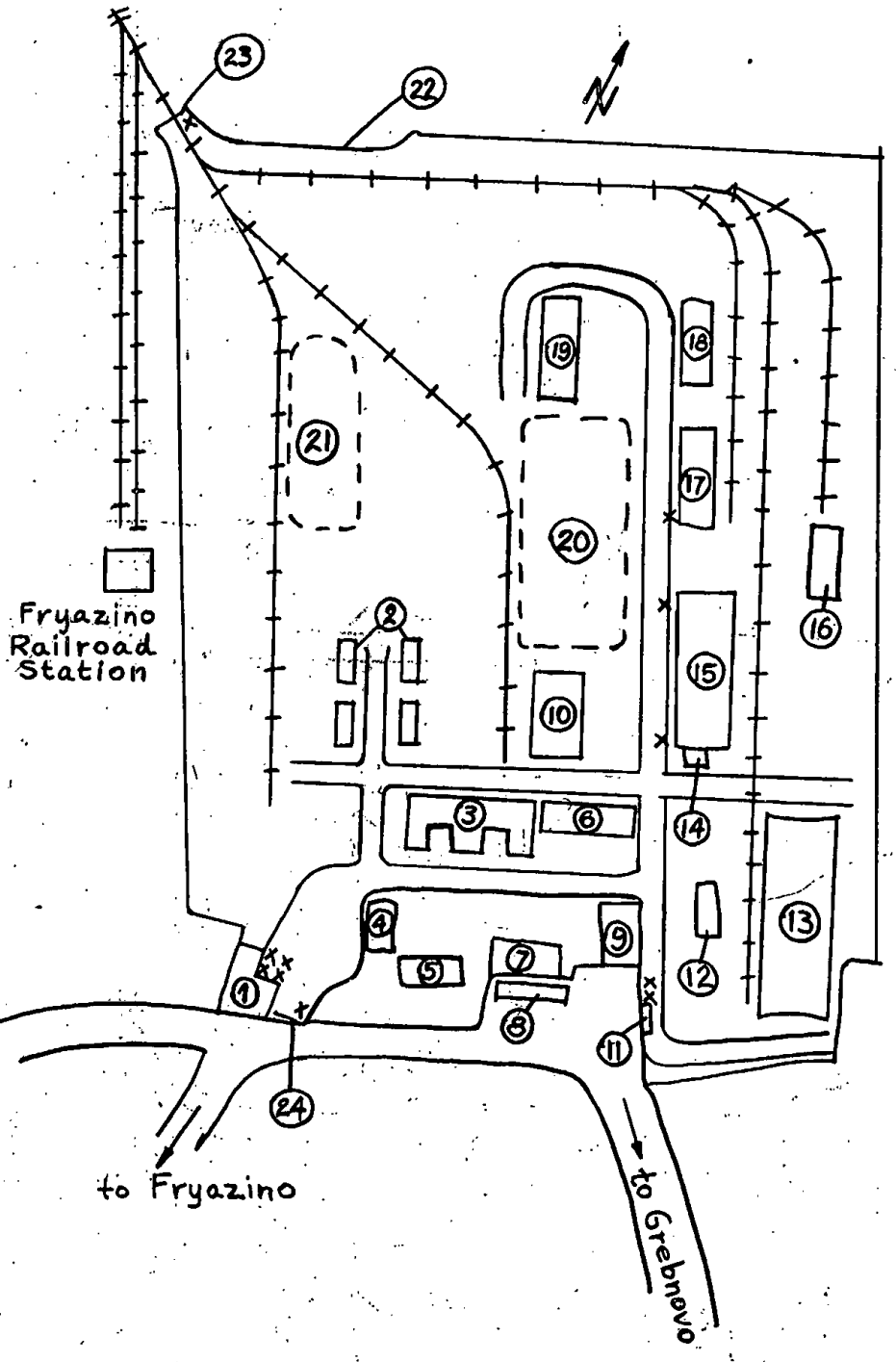

Site Layout of Institute 160, Fryazino

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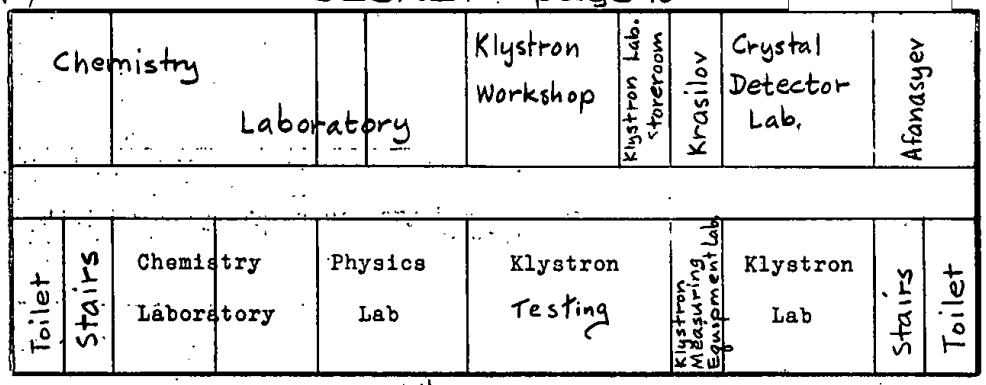
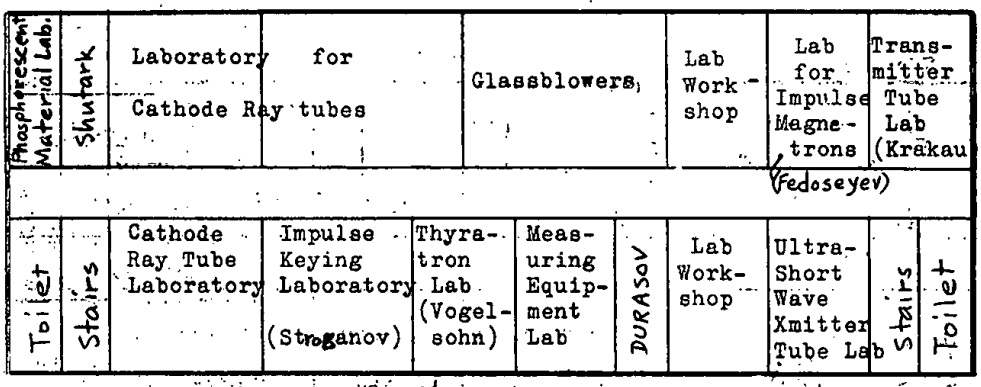
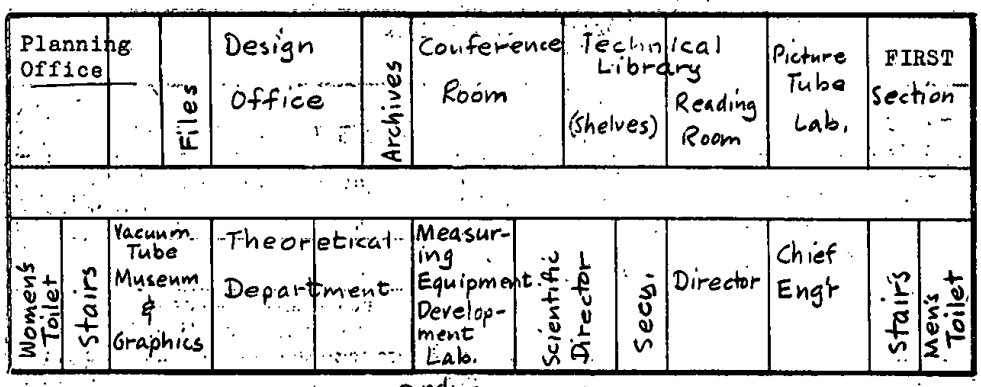


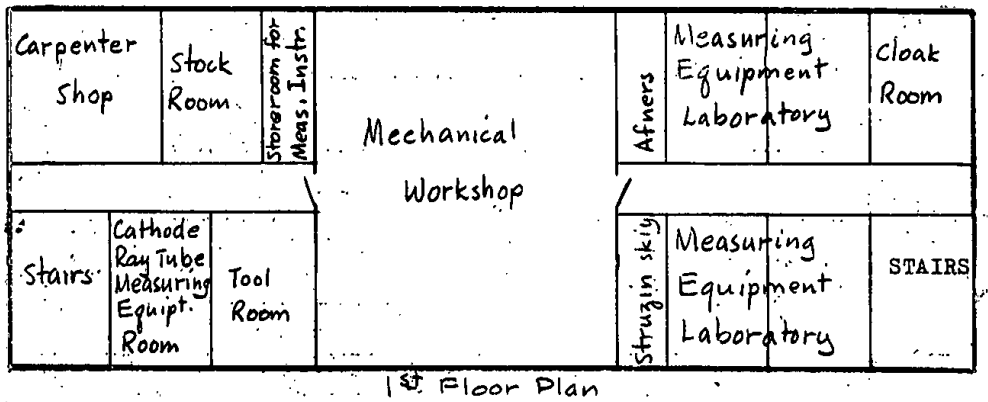
4th Floor Plan



3rd Floor Plan



2nd Floor Plan



1st Floor Plan

INSTITUTE BUILDING - INSTITUTE 160 - FRYAZINO - USSR

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